

Name: \_\_\_\_\_

**at1124exam: Radicals and Squares (v801)**

**Question 1**

Simplify the radical expressions.

$$\sqrt{44}$$

$$\sqrt{12}$$

$$\sqrt{27}$$

**Question 2**

Find all solutions to the equation below:

$$2((x - 4)^2 - 4) = 90$$

**Question 3**

By completing the square, find both solutions to the given equation. *You must show work for full credit!*

$$x^2 - 14x = 72$$

**Question 4**

A quadratic polynomial function is shown below in standard form.

$$y = 2x^2 - 20x + 56$$

Express the function in **vertex form** and identify the **location** of the vertex.